# Improving the security of protected wireless internet access from insider attacks

## Abstract

Although some of public wireless Internet access (Wi-Fi) networks are protected by encryption mechanisms such as WEP and WPA, connected hosts are still unnecessarily visible and accessible. Because there is no need to use shared resources in these networks, internal adversaries can misuse IP visibility in shared media. In this paper, some of the common internal targeted attacks towards these networks are studied. In addition, the security of protected public wireless networks is improved by putting each host in a dedicated VLAN, assigning random IP configurations to each, and filtering out all inter-communications packets. The experimental results show that invisible hosts were protected against inside targeted attacks.